



Proposal Review — TO Financial Schedules

Solar array at Oak Ridge National Laboratory

Cost Elements of ESPCs

Project Development

- Energy surveys, proposals

ECMs

- Direct costs for design, installation/construction

Indirect Costs

- e,g, overhead and profit

Financing

- Interest, financing procurement costs

Performance-Period Services

- O&M, R&R, M&V

Task Order Financial Schedules: ***The Cut-to-the-Chase Project Description***

All costs appear in the TO schedules

Schedule	Description	Office that uses the Schedule
TO-1	<ul style="list-style-type: none"> Guaranteed annual cost savings & annual contractor payments (savings and payments by year) 	Lawyers, COs, Leadership,
TO-2	<ul style="list-style-type: none"> Implementation price by ECM (investment costs) 	Contracting, Price Analysts
TO-3	<ul style="list-style-type: none"> Performance-period cash flow (financing info, annual cash flows) 	Budget, Finance, Resource Managers
TO-4	<ul style="list-style-type: none"> First-year energy & cost savings by ECM and tech category (savings breakout by ECM) 	Energy Managers, Engineering, Facility Managers
TO-5	<ul style="list-style-type: none"> Annual cancellation ceiling 	Leadership

ESPC: Purchasing Savings

- The government buys a basket of savings
 - TO-1 – Annual Cost Savings & Payments
- The basket is detailed by ECM
 - TO-4 – First-Year Energy & Cost Savings by ECM and Technology Category
- The guarantee is for one total amount of cost savings (not for individual ECMs)
- The government pays for savings as they accrue

TO-1

SCHEDULE TO-1 (final)**GUARANTEED COST SAVINGS AND CONTRACTOR PAYMENTS****IMPORTANT INFORMATION**

- (1) This schedule is not to be altered or changed in any way. Please note any clarifications in the comments/explanations area below.
- (2) The first year post-acceptance performance period estimated annual cost savings reflect technical proposal and engineering estimates as presented in TO-4.
- (3) The guaranteed annual cost savings are based on the general description of M&V plan proposed for the project.
- (4) The total of contractor payments (columns c and f) represents the TO price and should be supported by information submitted in and provided with Schedules TO-2 and TO-3.
- (5) If applicable, prior to post-acceptance performance period, implementation period allowable payments and energy savings are one-time amounts only.
- (6) If applicable, provide a separate table showing proposed energy rates (i.e., \$/kWh, \$/kW, \$/MBtu) for each post-acceptance performance period year, derived using the National Institute of Standards and Technology Handbook 135 and Annual Supplement or other appropriate methods. Also, submit escalation rates applied to energy-related O&M savings (including water and sewer): ____% per year.
- (7) The proposed guaranteed cost savings during the implementation period and post-acceptance performance period must exceed the contractor payments
- (8) [Reserved] (9) [Reserved]
- (10) If selected, the contractor shall complete the installation of all proposed ECMs not later than ____ months after TO award.

Task Order No.:	Contractor Name:	Project Site:	
	(a) Estimated Cost Savings (\$)	(b) Guaranteed Cost Savings (\$)	(c) Contractor Payment (\$)
Implementation Period	275,122	260,239	260,238.99
Post-Acceptance Performance Period Year	(d) Estimated Annual Cost Savings (\$)	(e) Guaranteed Annual Cost Savings (\$)	(f) Annual Contractor Payments (\$)
One	840,489	795,022	750,021.32
Two	862,890	816,211	816,210.07
Three	885,888	837,965	837,963.53
Four	909,498	860,298	860,296.76
Five	933,738	883,226	883,225.21
Six	958,623	906,766	906,764.75
Seven	984,172	930,933	930,931.65
Eight	1,010,402	955,744	955,742.64
Nine	1,037,331	981,216	981,214.90
Ten	1,064,978	1,007,367	1,007,366.03
Eleven	1,093,362	1,034,215	1,034,214.13
Twelve	1,122,502	1,061,779	1,061,777.78
Thirteen	1,152,418	1,090,077	1,090,076.06
Fourteen	1,183,132	1,119,130	1,119,128.54
Fifteen	1,214,665	1,148,956	1,148,955.31
Sixteen	1,274,038	1,179,578	470,695.36
Total Post Acceptance:	16,501,128	15,608,483	14,854,584.04
Total Implementation Period & Post Acceptance		Total Guaranteed Cost Savings (b + e)	Total Contractor Payments (c + f)
		15,868,721	15,114,823.03

Explanations/Comments:

TO-2 shows total direct and indirect costs and profit by ECM



SCHEDULE TO-2 IMPLEMENTATION PRICE BY ENERGY CONSERVATION MEASURE

IMPORTANT INFORMATION:

- 1) This schedule is not to be altered or changed in any way. Please note any clarifications in the comments/explanations area below.
- 2) Implementation expense shall include only direct costs for each ECM and no post-acceptance performance period expenses. Indirect expenses and profit will be applied to the sum of direct expenses for all ECMs and project development to calculate total implementation price (d) for the project.
- 3) Contractor shall attach adequate supporting information detailing total implementation expenses.
- 4) Contractor shall propose bonded amount representing the basis of establishing performance and payment bonds per Section H of the contract, as required.
- 5) Attached supporting information shall be presented to identify portions of ECM or project expenses included in proposed bonded amount.
- 6) Proposed bonded amount is assumed to include indirect expenses and profit applied to implementation expenses above, unless otherwise specified by contractor.
- 7) For the following ECMs, enter the *total installed capacity of new equipment* in the units specified (e.g., chillers-150); chillers and packaged units in tons, VFDs in hp, boilers and furnaces in input Btu/hr, BAS/EMCS in number of points, transformers in kVA, generators in kW. For lighting ECMs, specify baseline kW treated.
- 8) M&V expense shall not include any performance-period expenses.

Project Site: Fort Rau

Task Order No.:000-xxx-000

Contractor Name:

Tech Category (TC)	ECM No.	Equipment Description — Title	ECM Size	M&V Expense	Implementation Expense		(c) Profit \$	(d)
					(a) Direct	(b) Indirect		Implementation Price: Totals (a)+(b)+(c) = (d)
n/a	n/a	Project Development	n/a	\$	\$456,468			
TC.3	3.1	Energy management control system improvements	32 bldgs, 706,330 sq.ft, 3761 pts	79,844	1,197,835			
TC.5	5.1	Lighting improvements	29,439 kW/yr, 1,450,000 sf	21,996	1,917,663			
TC.13	13.1	Domestic water conservation	59.4 mill gall/yr, 2,855,000sf	4,663	819,311			
TC.13	13.5	Induced draft fan bearings – cooling water flow control	10/3 million gall/yr	1,000	2,384			
TC.13	13.8	Leak repairs	2.5 million gall/yr	1,000	13,906			
TC.13	13.9	Recirculation of wash rack sediment basin water	7 million gall/yr	1,000	21,917			
TC.13	13.10	Kitchen water conservation	6.8 million gall/yr	1,000	16,687			
					\$			
					\$			
					\$			
TOTALS				110,503	4,895,713	708,211	650,000	\$ 6,364,427
Bonded Amount (\$)								

Explanations/Comments:

TO-3 Post-Acceptance Performance Period Cash Flow

SCHEDULE TO-3 — POST-ACCEPTANCE PERFORMANCE PERIOD CASH FLOW (page 1)

IMPORTANT INFORMATION: This schedule is not to be altered or changed in any way.

Project Site:

Task Order No:

Contractor Name:

Project Capitalization		Applicable Financial Index: US Treasury Securities	Issue Date: 2/21/2010
Total Implementation Price (from TO-2 Total)	\$6,364,427	Term (Years): 16 years	Source: Hannon Armstrong
Plus Financing Procurement Price (\$)	\$405,426	Index Rate: 4.60%	Effective Through: 2/27/2010
Less Implementation Period Payments (from TO-1 (final (c)) (If proposed, must be fully documented))	\$260,239	Added Premium (adjusted for tax incentives): 1.10%	
Total Amount Financed (Principal)	\$6,509,613	Project Interest Rate: 5.70%	

Term	1	2	3	4	5	6
Annual Cash Flow (Post-Acceptance Performance Period)						
Debt Service						
Principal Repayment (\$)	107,743	197,733	226,043	256,488	289,206	324,342
Less incentives (i.e., REC, White Tag, etc.)						
Net principal repayment before interest	107,743	197,733	226,043	256,488	289,206	324,342
Interest (\$)	368,262	359,794	347,791	334,119	318,654	301,260
Total Debt Service (a)	476,005	557,526	573,835	590,608	607,859	625,602
Post-Acceptance Performance Period Expenses	1,000	1,021	1,043	1,064	1,087	1,110
Management/Administration	10,801	11,028	11,261	11,498	11,740	11,987
Operation						
Maintenance	62,786	64,108	65,457	66,835	68,242	69,678
Repair and Replacement	94,417	96,404	98,434	100,506	102,621	104,782
Measurement and Verification	39,584	24,432	24,946	25,471	26,008	26,555
Permits and Licenses						
Insurance						
Property Taxes						
Other – Describe and Explain						
Other – Describe and Explain						
SUBTOTAL Before Application of Indirect Rates	207,588	195,972	200,098	204,310	208,610	213,002
Indirect Cost Rate (%)	32%	32%	32%	32%	32%	32%
Indirect Cost Applied (\$)	66,428	62,711	64,031	65,379	66,755	68,161
SUBTOTAL Post-Acceptance Performance Period Exp.						
Post-Acceptance Performance Period Profit (%)						
Post-Acceptance Performance Period Profit (\$)						
Total Post-Acceptance Performance Period Expenses (b)	274,016	258,684	264,129	269,689	275,366	281,162
TOTAL - ANNUAL CONTRACTOR PAYMENTS (a)+(b)	750,021	816,210	837,964	860,297	883,225	906,765

TO-4 Breaks out estimated savings (current year \$)

SCHEDULE TO-4

Task Order Performance Period First Year Estimated Annual Cost Savings, by Energy Conservation Measure and Technology Category

IMPORTANT INFORMATION:

- 1) Project Square Footage (in 1000 SF) - Include only building square footage affected by installed ECMs in project.
- 2) For column (a) insert estimated energy baseline by ECM and total project in MBtu based on IGA, and proposal data.
- 3) For column (c1), annual electric demand savings (kW/yr) is the sum of the monthly demand savings
- 4) Energy conversion factors for MBtu: MBtu=10⁶ Btu; Electricity— 0.003413 MBtu/kWh; Natural Gas — 0.1 MBtu/therm.; #2 Oil — 0.128 MBtu/gal.
- 5) Specify "Other" energy savings in (e)(1) and (e)(2) as applicable. Include energy type ; energy units ; and MBtu conversion factor MBtu/ (unit)
- 6) This schedule is not to be altered or adapted in any way. Please note any clarifications in the comments/explanations area below.

Project Site:			Task Order#:				Contractor Name:				Project Square Footage (KSF):							
TC No. 4a, J3	ECM No.	a. ECM energy baseline (MBtu/yr)	b1. Electric energy savings (kWh/yr)	b2. Electric energy savings (\$/yr)	c1. Electric demand savings (kW/yr)	c2. Electric demand savings (\$/yr)	d1. Natural gas savings (MBtu/yr)	d2. Natural gas savings (\$/yr)	e1. Other savings (MBtu/yr)	e2. Other savings (\$/yr)	f. b1+d1+c1 Total energy savings (MBtu/yr)	g. -b2+c2+d2+c2 Total energy cost savings (\$/yr)	h. Other energy-related and Q&M cost savings (\$/yr)	i. Water savings (1000 gal/yr)	j. Water savings (\$/yr)	k. -g+h+j Estimated annual cost savings (\$/yr)	l. Implementation price (\$)	m-lk Simple Payback (yrs.)
n/a	n/a																\$602,538	
TC.3	3.1	84,804	1,621,687	\$61,348			6,981	\$45,864	15,692	\$41,89	28,209	\$149,110	204,364			\$353,474	\$1,581,142	4.5
TC.5	5.1	30,901	5,203,992	\$261,403	14,907	\$28,697	(805)	\$(4,476)			16,691	\$285,624	20,827			\$306,452	\$2,531,318	8.3
TC.1	13.1	28,670	835,107	\$45,071			2,252	\$15,188	2,005	\$5,353	7,108	\$65,610		26,265	\$55,405	\$121,015	\$1,081,491	8.9
TC.1	13.5													5,451	\$11,012	\$11,012	\$3,147	0.3
TC.1	13.8	322							322	\$859	322	\$859		2,533	\$5,117	\$5,977	\$18,356	3.1
TC.1	13.9		(373)	\$(14)							(1)	\$(14)		6,992	\$14,124	\$14,110	\$28,930	2.1
TC.1	13.10	2,429							474	\$1,266	474	\$1,266		2,657	\$5,366	\$6,632	\$22,027	3.3
EM5 (ESCC) direct cost (less proposal development energy surveys)																		\$593,394
TOTALS			147,126	7,660,413	\$367,808	14,907	\$28,697	8,427	\$56,574	18,493	49,376	53,073	\$436,845	\$225,191	43,898	\$91,024	753,060	\$6,364,427

Explanations/Comments:

For ECM 3.1, energy-related Q&M savings are from avoided existing Q&M subcontract and equal to proposed Q&M costs for preventive maintenance and repair.
 For ECM 5.1, energy-related Q&M savings and lighting materials (only) savings.

Schedule TO-5 — Annual Cancellation Ceiling Listing

- Required by ESPC legislation
- Negotiated by agency and ESCO
- Shows outstanding liability for each year of term
 - Usually ~ 105% of outstanding debt for year
 - Amount over 100% represents ESCO's transaction costs and early termination penalty from financier
 - Should not include lost profit or service costs
- Exact principal balance of loan (by month) is often attached to expedite loan payoff in the event of termination for convenience (T for C)
 - (T for C is discussed in Phase 5)

TO-5

SCHEDULE TO-5		
ANNUAL CANCELLATION CEILING SCHEDULE		
IMPORTANT INFORMATION:		
(1) Cancellation Ceilings for each time period specified below establish the maximum termination liability for that time period, and includes the remaining unamortized principal on total amount financed for each time period specified below plus any prepayment charges. Actual total termination costs will be negotiated.		
(2) The contractor may attach a monthly Financing Termination Liability Schedule.		
(3) In the event of TO cancellation or termination for convenience, FAR 52.217-2 or 52.249.2 will apply.		
Project Site:	Task Order No:	Contractor Name:
Fort Raup		EMS
Time Period	Cancellation Ceiling	
Installation Acceptance	6,883,854	
End of Year One	6,755,376	
End of Year Two	6,531,010	
End of Year Three	6,276,233	
End of Year Four	5,988,823	
End of Year Five	5,666,415	
End of Year Six	5,306,497	
End of Year Seven	4,906,399	
End of Year Eight	4,463,286	
End of Year Nine	3,974,147	
End of Year Ten	3,435,783	
End of Year Eleven	2,844,800	
End of Year Twelve	2,197,592	
End of Year Thirteen	1,490,335	

Which Schedule?

Q1: The annual guaranteed savings for the entire term?

A: TO-1

Q2: Payments for performance-period services in Year Three?

A: TO-3

Q3: Maximum termination liability for Year One?

A: TO-5

Q4: Implementation price for ECMs?

A: TO-2

Q5: Energy cost savings by ECM?

A: TO-4

Review Questions

Q6: Name three ESPC cost elements.

A:

Project development

ECMs (implementation)

Indirect costs and profit

Financing costs

Performance-period services

Next: K Proposal Review – Financing



J-14